

NOTE

First Report of *Amblyomma pseudoconcolor* Aragão (Acari: Ixodida: Ixodidae) from Bolivia, with a New Record of this Tick from the Grey Brocket Deer, *Mazama gouazoubira* (G. Fischer) (Mammalia: Artiodactyla: Cervidae)

Most of the 57 generally recognized species of *Amblyomma* known from the Neotropical Zoogeographic Region occur in humid lowlands, where they and their hosts are accessible to collectors, with the result that only seven new species in this tick genus have been described from the Neotropics during the last half century (Guglielmoni et al., in press). But while the job of inventorying the Neotropical amblyomine fauna may be virtually complete, there still are large gaps in our knowledge of the biology and distribution of many species, especially those that seldom parasitize humans or domesticated animals. *Amblyomma pseudoconcolor* Aragão is representative of this problem: its preimaginal stages remain undescribed, its principal hosts are armadillos (Xenarthra: Dasypodidae), and its recorded range—Argentina, Brazil, French Guiana, Paraguay, Surinam, and Uruguay—is disjunct, an artifact of incomplete collecting (Buitendijk 1945, Boero 1957, Floch and Fauran 1958, Aragão and Fonseca 1961, Venzal et al. 2002). Contrary to most of its Neotropical congeners, *A. pseudoconcolor* is also small (male body length \approx 3 mm) and indistinctly ornate, so that even investigators who regularly examine armadillos are likely to overlook this tick. Between 1999 and 2001, two of us (SLD and AJN) were able to collect modest numbers of *A. pseudoconcolor* (Table 1) from three species of armadillo (*Dasypus novemcinctus* L., *Euphractus sexcinctus* (L.), and *Tolypeutes matacus* (Desmarest)) examined in the vicinity of the Cerro Cortado field camp, on the boundary between the Izoceño-Guaraní (Isoso) indigenous territory and the vast Kaa-Iya del Gran Chaco National Park (Parque Nacional y Área

Natural de Manejo Integrado Kaa-Iya del Gran Chaco), about 300 km southeast of the city of Santa Cruz and 25 km east of the nearest Izoceño-Guaraní community (19.31.36S, 62.18.36W). We believe that these are the first collections of *A. pseudoconcolor* ever reported from Bolivia. In addition, on 10 July 1999, SLD removed a single male of *A. pseudoconcolor* while conducting a postmortem examination of a female grey (also known as brown) brocket deer, *Mazama gouazoubira* (G. Fischer). Because armadillos and brocket deer are ecological associates in the Gran Chaco, this new host record is less surprising than it might otherwise seem.

The Chaco ecosystem surrounding Cerro Cortado field camp chiefly consists of short, dense thorn forest (3–5 m canopy, with emergents 8–15 m tall). Annual precipitation averages just 550 mm, and the dry season can last from May to December. Similar conditions prevail (though precipitation rises to 800 mm in the east) throughout the neighboring national park, which comprises 3,441,115 ha of largely virgin dry forest, and whose creation was proposed by the Izoceño-Guaraní people, with assistance from the Wildlife Conservation Society. Originally, South America's Chaco dry forest extended over 1 million km² of eastern Bolivia, northern Argentina, and Paraguay. This habitat type shelters a conspicuously endangered mammal fauna, including the Chacoan peccary, *Catagonus wagneri* (Rusconi), tapir, *Tapirus terrestris* (L.), Chacoan guanaco, *Lama guanicoe voglii* (Krumbiegel), jaguar, *Panthera onca* (L.), maned wolf, *Chrysocyon brachyurus* (Illiger), salt-desert cavy, *Dolichotis salinicola* Burmeister, and the armadillos *Cabassous*

Table 1. Collections of *Amblyomma pseudoconcolor* from the vicinity of Cerro Cortado field camp, near Kaa-Iya del Gran Chaco National Park, Bolivia.

MEDARKS No.*	Ticks	Host	Date	Collector
1999-0176	6 ♂	<i>Tolypeutes matacus</i> ♀	18 March 1999	S. L. Deem
1999-0175	1 ♂	<i>Euphractus sexcinctus</i> sex?	17 May 1999	S. L. Deem
1999-0010	1 ♂	<i>Mazama gouazoubira</i> ♀	10 July 1999	S. L. Deem
2000-0049	1 ♂	<i>Dasypus novemcinctus</i> ♀	18 July 2000	S. L. Deem
2001-0012	2 ♂	<i>Tolypeutes matacus</i> ♀	26 March 2001	S. L. Deem
2001-0113	1 ♀	<i>Dasypus novemcinctus</i> ♂	6 November 2001	A. J. Noss
2001-0012 (recapture)	1 ♂	<i>Tolypeutes matacus</i> ♀	9 November 2001	A. J. Noss
2001-0118	2 ♂, 2 ♀	<i>Tolypeutes matacus</i> ♀	9 November 2001	A. J. Noss
2001-0117	1 ♂	<i>Tolypeutes matacus</i> ♀	10 November 2001	A. J. Noss
2001-0116	4 ♂, 1 ♀	<i>Tolypeutes matacus</i> ♀	10 November 2001	A. J. Noss
2001-0121	6 ♂	<i>Tolypeutes matacus</i> ♂	11 November 2001	A. J. Noss
2001-0120	2 ♂	<i>Tolypeutes matacus</i> ♂	11 November 2001	A. J. Noss
2001-0115	2 ♂	<i>Tolypeutes matacus</i> ♂	24 November 2001	A. J. Noss
2001-0114	1 ♂	<i>Tolypeutes matacus</i> ♀	25 November 2001	A. J. Noss

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chacoensis Wetzel, *Chlamyphorus retusus* Burmeister, and *Priodontes maximus* (Kerr) (Taber et al. 1997, Noss et al. 2002).

We have no explanation for the scarcity of female *A. pseudoconcolor* on the three species of armadillo that we examined, but so little is known about the biology of this tick that no statement can safely be made concerning the prevalence or intensity of parasitization by either sex. Significantly, our collections of *A. pseudoconcolor* from armadillos were often accompanied by equal or larger numbers of *A. parvum* Aragão, a common Central and South American tick that has been reported from a wide variety of mammals (Fairchild et al. 1966) and that superficially resembles *A. pseudoconcolor* (Jones et al. 1972). Thus, while our 12 armadillos (including one recaptured animal) yielded a total of 33 specimens of *A. pseudoconcolor*, the total number of *A. parvum* removed from these hosts was 65. If *A. parvum* is usually more numerous than *A. pseudoconcolor* on Bolivian xenarthrans, then the two tick species might easily be confused and lumped as "*A. parvum*," which could account for the absence until now of *A. pseudoconcolor* in published Bolivian tick collections.

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three years of this study, we warmly thank our Wildlife Conservation Society colleagues and the Capitanía del Alto y Bajo Izozog, the organization representing the Izoceño-Guaraní people and responsible for administering the indigenous territory and co-administering Kaa-Iya del Gran Chaco National Park. Funding for SLD and VG was provided by the Field Veterinary Program, Wildlife Conservation Society. All tick specimens resulting from this investigation are on long-term loan to RGR. The opinions and assertions advanced herein are those of the authors and are not to be construed as official or reflecting the views of the U.S. Departments of the Army or Defense.

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